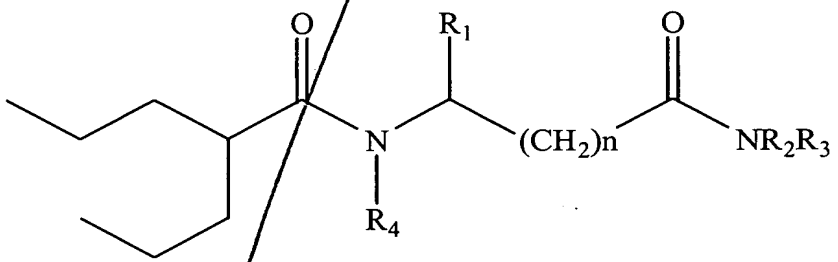
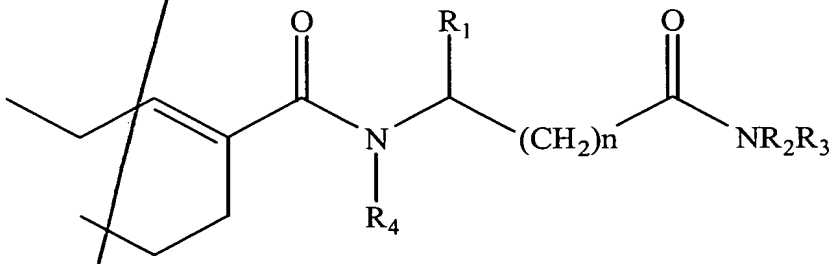
What is claimed

1. A method of treating a subject suffering from pain comprising periodically administering to the subject a therapeutically effective dose of a compound having the following structure:



or



wherein R_1, R_2, R_3 and R_4 are independently the same or different and are hydrogen, a linear or branched C_1-C_6 alkyl group, an aralkyl group, or an aryl group, and n is an integer which is greater than or equal to 0 and less than or equal to 3, so as to thereby treat the subject's pain.

2. The method of claim 1, wherein one or more of R_1, R_2, R_3 or R_4 is a linear chain C_1-C_6 alkyl group.

3. The method of claim 1, wherein one or more of R_1, R_2, R_3 or R_4 is a branched chain C_1-C_6 alkyl group.

4. The method of claim 1, wherein one or more of R_1, R_2, R_3 or R_4 is a benzyl, alkylbenzyl, hydroxybenzyl, alkoxycarbonylbenzyl, aryloxycarbonylbenzyl, carboxybenzyl, nitrobenzyl, cyanobenzyl, or halobenzyl group.

5. The method of claim 1, wherein one or more of R_1, R_2, R_3 or R_4 is a phenyl, naphthyl, anthracenyl, pyridinyl, indolyl, furanyl, alkylphenyl, hydroxyphenyl, alkoxycarbonylphenyl, aryloxycarbonylphenyl, nitrophenyl, cyanophenyl, halophenyl group, mercaptophenyl, or aminophenyl group.

6. The method of claim 1, wherein the pain is acute pain.

7. The method of claim 1, wherein the pain is chronic pain.

8. The method of claim 1, wherein the pain is somatogenic pain.

9. The method of claim 8, wherein the somatogenic pain is neuropathic pain.

10. The method of claim 1, wherein the subject is a human being.

11. The method of claim 1, wherein the administration is oral, parenteral, intraperitoneal, intravenous, intramuscular, transdermal, subcutaneous, topical or rectal administration.

12. The method of claim 1, wherein the administration is by inhalation, sublingual, nasal, buccal, pulmonary or vaginal administration.

13. The method of claim 1, wherein the periodic administration is effected daily.

14. The method of claim 1, wherein the periodic administration is effected less than or equal to six times a day.

15. The method of claim 14, wherein the periodic administration is effected six times a day.

16. The method of claim 1, wherein the therapeutically effective dose is an amount from about 10 mg to about 6,000 mg.

17. The method of claim 16, wherein the therapeutically effective dose is an amount from about 500 mg to about 4,000 mg.

18. The method of claim 16, wherein the therapeutically

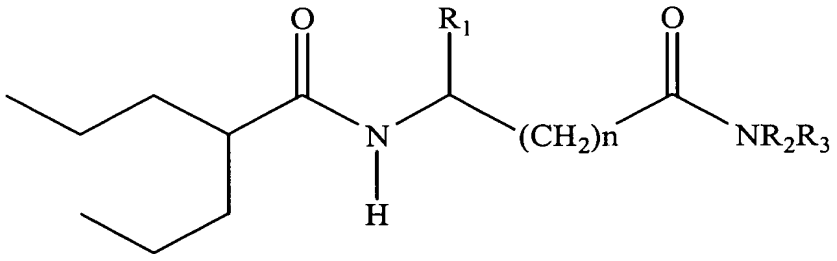
effective dose is an amount from about 10 mg to about 3,000 mg.

19. The method of claim 18, wherein the therapeutically effective dose is about 3,000 mg.

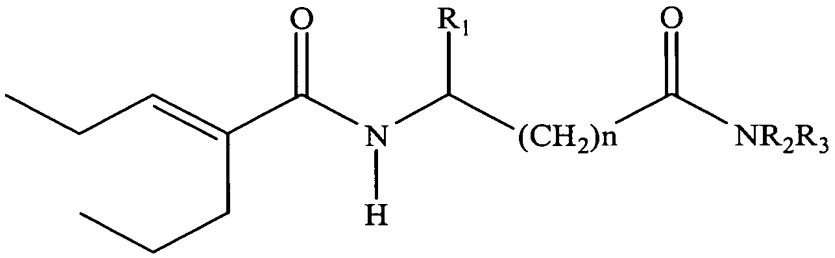
20. The method of claim 18, wherein the therapeutically effective dose is an amount from about 10 mg to about 1,000 mg.

21. The method of claim 20, wherein the therapeutically effective dose is an amount from about 50 mg to about 500 mg.

22. The method of claim 1, wherein the compound has the following structure:



or



23. The method of claim 22, wherein the compound is N-(2-n-propylpentanoyl)glycinamide.

24. The method of claim 23, wherein the therapeutically effective dose is 3000 mg/day and the pain is neuropathic pain.

25. The method of claim 22, wherein the compound is N-2(-n-propylpent-2-enoyl)glycinamide.

26. The method of claim 22, wherein one or more of R_1, R_2, R_3 or R_4 is a linear chain C_1-C_6 alkyl group.

27. The method of claim 22, wherein one or more of R_1, R_2, R_3 or R_4 is a branched chain C_1-C_6 alkyl group.

28. The method of claim 22, wherein one or more of R_1, R_2, R_3 or R_4 is aralkyl group is a benzyl, alkylbenzyl, hydroxybenzyl, alkoxycarbonylbenzyl, aryloxycarbonylbenzyl, carboxybenzyl, nitrobenzyl, cyanobenzyl, or halobenzyl group.

29. The method of claim 22, wherein one or more of R_1, R_2, R_3 or R_4 is a phenyl, naphthyl, anthracenyl, pyridinyl, indolyl, furanyl, alkylphenyl, hydroxyphenyl, alkoxycarbonylphenyl, aryloxycarbonylphenyl, nitrophenyl, cyanophenyl, halophenyl group, mercaptophenyl, or aminophenyl group.

30. The method of claim 22, wherein the pain is acute pain.

31. The method of claim 22, wherein the pain is chronic pain.

32. The method of claim 22, wherein the pain is somatogenic pain.

33. The method of claim 32, wherein the somatogenic pain is neuropathic pain.

34. The method of claim 22, wherein the subject is a human being.

35. The method of claim 22, wherein the administration oral, parenteral, intraperitoneal, intravenous, intramuscular, transdermal, subcutaneous, topical or rectal administration.

36. The method of claim 22, wherein the administration is by inhalation, sublingual, nasal, buccal, pulmonary or vaginal administration.

37. The method of claim 22, wherein the periodic administration is effected daily.

38. The method of claim 22, wherein the periodic administration is effected less than or equal to six times a day.

39. The method of claim 38, wherein the periodic administration is effected six times a day.

40. The method of claim 22, wherein the therapeutically effective dose is an amount from about 10 mg to about 6,000 mg.

41. The method of claim 40, wherein the therapeutically effective dose is an amount from about 500 mg to about 4,000 mg.

42. The method of claim 40, wherein the therapeutically effective dose is an amount from about 10 mg to about 3,000 mg.

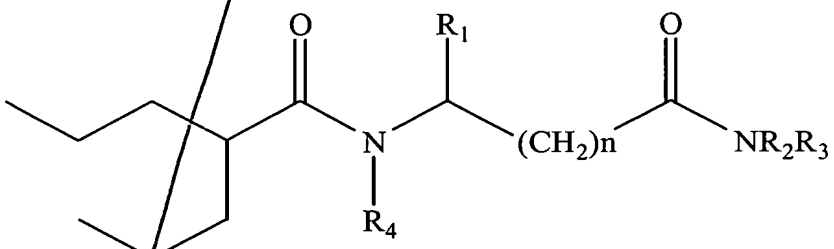
43. The method of claim 42, wherein the therapeutically effective dose is about 3,000 mg.

44. The method of claim 42, wherein the therapeutically effective dose is an amount from about 10 mg to about 1,000 mg.

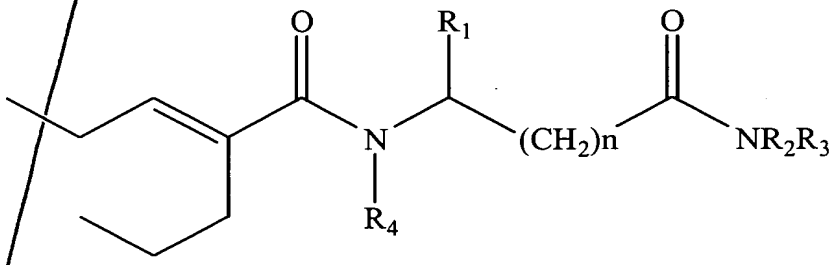
45. The method of claim 44, wherein the therapeutically effective dose is an amount from about 50 mg to about 500 mg.

46. A method of treating a subject suffering from neuropathic pain comprising administering to the subject 500 mg of N-(2-n-propylpentanoyl)glycinamide six times per day so as to thereby treat the subject's neuropathic pain.

47. A method of preventing pain in a subject predisposed to suffering from pain comprising periodically administering to the subject a prophylactically effective dose of a compound having the following structure:



or



wherein R_1, R_2, R_3 and R_4 are independently the same or different and are hydrogen, a linear or branched C_1-C_6 alkyl group, an aralkyl group, or an aryl group, and n is an integer which is greater than or equal to 0 and less than or equal to 3, so as to thereby prevent pain in the subject.

48. The method of claim 47, wherein one or more of R_1, R_2, R_3 or R_4 is a linear chain C_1-C_6 alkyl group.

49. The method of claim 47, wherein one or more of R_1, R_2, R_3 or R_4 is a branched chain C_1-C_6 alkyl group.

50. The method of claim 47, wherein one or more of R_1, R_2, R_3 or R_4 is a benzyl, alkylbenzyl, hydroxybenzyl, alkoxycarbonylbenzyl, aryloxycarbonylbenzyl, carboxybenzyl, nitrobenzyl, cyanobenzyl, or halobenzyl group.

51. The method of claim 47, wherein one or more of R_1, R_2, R_3 or R_4 is a phenyl, naphthyl, anthracenyl, pyridinyl, indolyl, furanyl, alkylphenyl, hydroxyphenyl, alkoxycarbonylphenyl, aryloxycarbonylphenyl, nitrophenyl, cyanophenyl, halophenyl group, mercaptophenyl, or aminophenyl group.

52. The method of claim 47, wherein the pain is acute pain.

53. The method of claim 47, wherein the pain is chronic pain.

54. The method of claim 47, wherein the pain is somatogenic pain.

55. The method of claim 54, wherein the somatogenic pain is neuropathic pain.

56. The method of claim 47, wherein the subject is a human being.

57. The method of claim 47, wherein the administration is oral, parenteral, intraperitoneal, intravenous, intramuscular, transdermal, subcutaneous, topical or rectal administration.

58. The method of claim 47, wherein the administration is by inhalation, sublingual, nasal, buccal, pulmonary or vaginal administration.

59. The method of claim 47, wherein the periodic administration is effected daily.

60. The method of claim 47, wherein the periodic administration is effected less than or equal to six times a day.

61. The method of claim 60, wherein the periodic administration is effected six times a day.

62. The method of claim 47, wherein the prophylactically effective dose is an amount from about 10 mg to about 6,000 mg.

63. The method of claim 62, wherein the prophylactically effective dose is an amount from about 500 mg to about 4,000 mg.

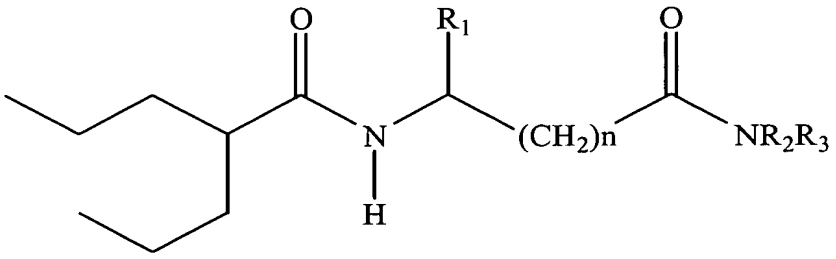
64. The method of claim 62, wherein the prophylactically effective dose is an amount from about 10 mg to about 3,000 mg.

65. The method of claim 64, wherein the prophylactically effective dose is about 3,000 mg.

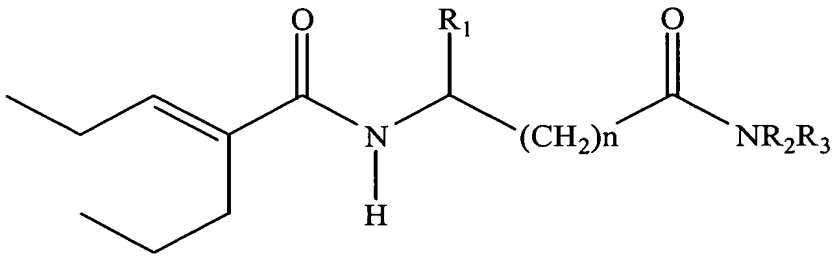
66. The method of claim 64, wherein the prophylactically effective dose is an amount from about 10 mg to about 1,000 mg.

67. The method of claim 66, wherein the prophylactically effective dose is an amount from about 50 mg to about 500 mg.

68. The method of claim 47, wherein the compound the following structure:



or



69. The method of claim 68, wherein the compound is N-(2-n-propylpentanoyl)glycinamide.

70. The method of claim 69, wherein the prophylactically effective dose is 3000 mg/day and the pain is neuropathic pain.

71. The method of claim 68, wherein the compound is N-2(-n-propylpent-2-enoyl)glycinamide.

72. The method of claim 68, wherein one or more of R_1, R_2, R_3 or R_4 is a linear chain C_1-C_6 alkyl group.

73. The method of claim 68, wherein one or more of R_1, R_2, R_3 or R_4 is a branched chain C_1-C_6 alkyl group.

74. The method of claim 68, wherein one or more of R_1, R_2, R_3 or R_4 is aralkyl group is a benzyl, alkylbenzyl, hydroxybenzyl, alkoxycarbonylbenzyl, aryloxycarbonylbenzyl, carboxybenzyl, nitrobenzyl, cyanobenzyl, or halobenzyl group.

75. The method of claim 68, wherein one or more of R_1, R_2, R_3 or R_4 is a phenyl, naphthyl, anthracenyl, pyridinyl, indolyl, furanyl, alkylphenyl, hydroxyphenyl, alkoxycarbonylphenyl, aryloxycarbonylphenyl, nitrophenyl, cyanophenyl, halophenyl group, mercaptophenyl, or aminophenyl group.

76. The method of claim 68, wherein the pain is acute pain.

77. The method of claim 68, wherein the pain is chronic pain.

78. The method of claim 68, wherein the pain is somatogenic pain.

79. The method of claim 78, wherein the somatogenic pain is neuropathic pain.

80. The method of claim 68, wherein the subject is a human being.

81. The method of claim 68, wherein the administration oral, parenteral, intraperitoneal, intravenous, intramuscular, transdermal, subcutaneous, topical or rectal administration.

82. The method of claim 68, wherein the administration is by inhalation, sublingual, nasal, buccal, pulmonary or vaginal administration.

83. The method of claim 68, wherein the periodic administration is effected daily.

84. The method of claim 68, wherein the periodic administration is effected less than or equal to six times a day.

85. The method of claim 68, wherein the periodic

administration is effected six times a day.

86. The method of claim 68, wherein the prophylactically effective dose is an amount from about 10 mg to about 6,000 mg.

87. The method of claim 86, wherein the prophylactically effective dose is an amount from about 500 mg to about 4,000 mg.

88. The method of claim 86, wherein the prophylactically effective dose is an amount from about 10 mg to about 3,000 mg.

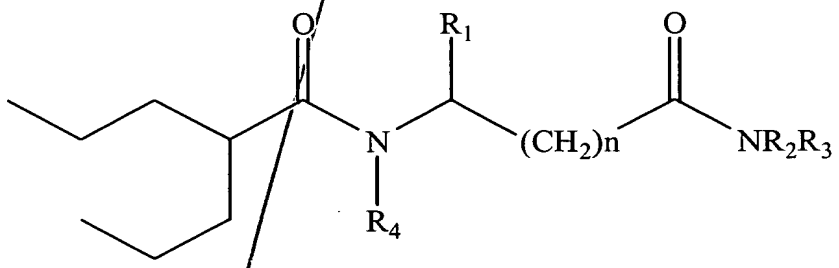
89. The method of claim 88, wherein the prophylactically effective dose is about 3,000 mg.

90. The method of claim 88, wherein the prophylactically effective dose is an amount from about 10 mg to about 1,000 mg.

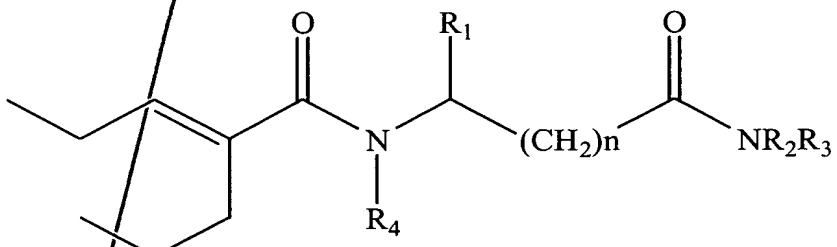
91. The method of claim 90, wherein the prophylactically effective dose is an amount from about 50 mg to about 500 mg.

92. A method of preventing neuropathic pain in a subject predisposed to suffering from neuropathic pain comprising administering to the subject 500 mg of N-(2-n-propylpentanoyl)glycinamide six times per day so as to thereby prevent the neuropathic pain in the subject.

93. A method of treating a subject suffering from pain comprising periodically administering to the subject a pharmaceutical composition comprising a therapeutically effective dose a compound having the following structure:



or

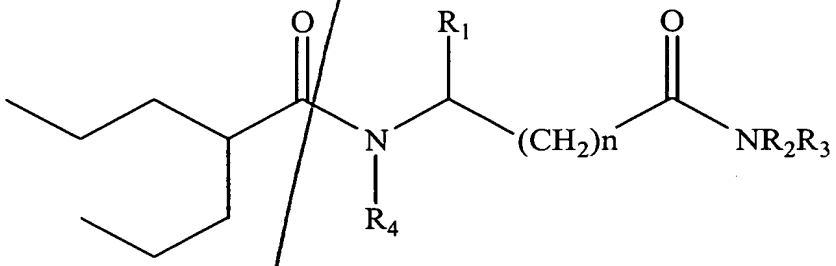


wherein R_1, R_2, R_3 and R_4 are independently the same or different and are hydrogen, a linear or branched C_1-C_6 alkyl group, an aralkyl group, or an aryl group, and n is an integer which is greater than or equal to 0 and less than or equal to 3,

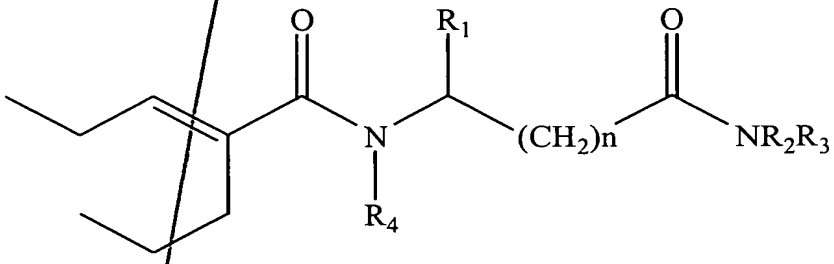
and a pharmaceutically acceptable carrier, so as to thereby treat the subject's pain.

94. A method of preventing pain in a subject predisposed to

suffering from pain comprising periodically administering to the subject a composition comprising a prophylactically effective dose of a compound having the following structure:



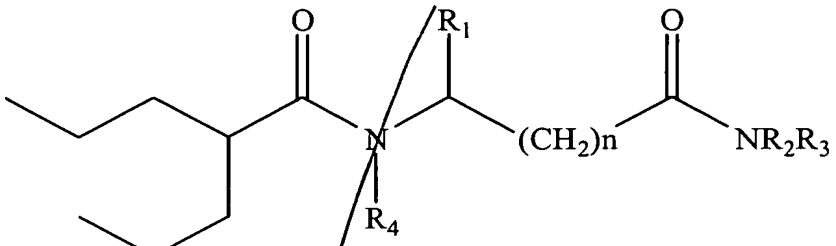
or



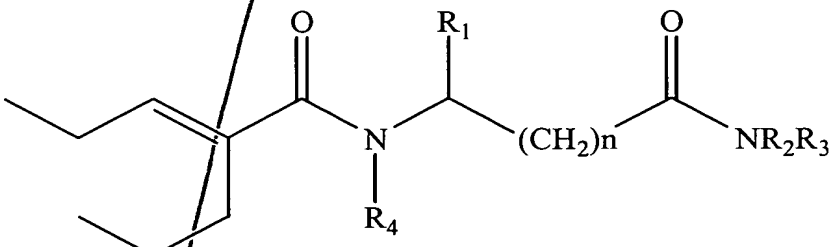
wherein R_1, R_2, R_3 and R_4 are independently the same or different and are hydrogen, a linear or branched C_1-C_6 alkyl group, an aralkyl group, or an aryl group, and n is an integer which is greater than or equal to 0 and less than or equal to 3,

and a pharmaceutically acceptable carrier, so as to thereby prevent pain in the subject.

95. A method of treating a subject suffering from a headache disorder comprising periodically administering to the subject a therapeutically effective dose of a compound having the following structure:

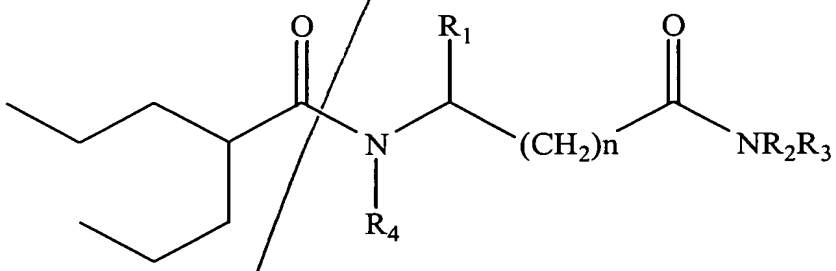


or

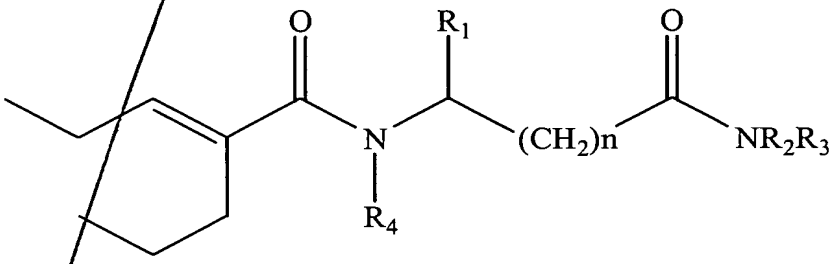


wherein R_1, R_2, R_3 and R_4 are independently the same or different and are hydrogen, a linear or branched C_1-C_6 alkyl group, an aralkyl group, or an aryl group, and n is an integer which is greater than or equal to 0 and less than or equal to 3, so as to thereby treat the headache disorder.

96. A method of preventing a headache disorder in a subject predisposed to suffering from a headache disorder comprising periodically administering to the subject a prophylactically effective dose of a compound having the following structure:



or



wherein R_1, R_2, R_3 and R_4 are independently the same or different and are hydrogen, a linear or branched C_1-C_6 alkyl group, an aralkyl group, or an aryl group, and n is an integer which is greater than or equal to 0 and less than or equal to 3, so as to thereby prevent the headache disorder in the subject.